

JULY 2022

VOLTS & VIEWS

 **Roseau Electric Cooperative, Inc.**

NORTHSTREAM
Powered by  **Roseau Electric Cooperative** **FIBER**

**Sounding the
alarm on
grid reliability**

Page 4

VOLTS & VIEWS

JULY 2022 – Vol. 67, No. 7

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Regular Business Hours: 8 a.m. - 4:30 p.m.

Phone (218) 463-1543

OUTAGE CALLS:

Toll-Free 1-888-847-8840

MINNESOTA STATE ELECTRICAL INSPECTORS

7 a.m. - 8:30 a.m. (Mon. thru Fri.)

Northwest Angle, Kittson, Marshall,
Pennington and Roseau counties
and parts of Beltrami County:

Ronald Ditsch – 218-779-6758

Lake of the Woods County:

Curt Collier – 218-966-5070

Inspector list is subject to change at any time.

The State of Minnesota has high wiring standards, which are in the best interest of you and your family or business. Improper wiring can damage your home, your property and equipment, and injure or kill the people you love. Currently, the state does allow homeowners to do their own residential wiring; however, it is critical that the current electrical code is followed. Any time you or an electrician does wiring or other electrical work at your home or farm, Minnesota state law requires a state wiring inspector to conduct a proper inspection of the work. A rough-in inspection must be made before any wiring is covered. A final inspection is also required. For more information visit dli.mn.gov and go to the electrical page.

Gopher State One Call
1-800-252-1166 or 811
www.gopherstateonecall.org



Anyone who plans to dig is required by law to notify the state of their intentions at least 48 hours in advance. All digging requires the 48-hour notification so that buried telephone line, television cable, pipelines, utility electrical lines, municipal water and sewer lines can be located to ensure that none will be severed or damaged.

OUR MISSION STATEMENT

Roseau Electric Cooperative is committed to providing its member-owners low-cost, high-quality, safe and reliable electricity with friendly, efficient and knowledgeable service.

This institution is an equal opportunity provider and employer.

You have the power to

- View daily and monthly energy use.
- View and pay your bills online.
- Go paperless and receive an email notice when your bill is ready to view.
- Compare energy use to changes in temperature.

For assistance, call us during regular business hours at 218-463-1543.

Sign up for SmartHub

@roseauelectric.coop



Grant Application Deadline

Aug. 31, 2022

To be considered at the September 2022 meeting, grant applications must be received by **Aug. 31, 2022.**

Grant applications are available at the REC office or by visiting our website at www.roseauelectric.com.



Warroad Community Partners was awarded a \$1,000 Operation Round Up® grant to purchase a generator for the Riverbend Skate Path. Pictured above: Jeremy Lindemann, Member Services Director at REC, and Jared Olafson, representing Warroad Community Partners

DOWNED POWER LINES

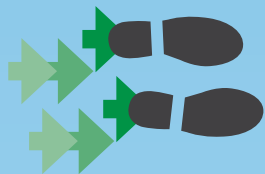
DOS & DON'TS

Downed power lines may not look dangerous, but don't be fooled. These lines are likely carrying electric currents strong enough to cause serious injury or death. If you come across a downed power line...

DOS

50ft.

Stay at least 50 feet away from the downed line (about the length of two school buses).



If closer, bunny hop at least 50 feet away keeping both feet together and landing at the same time.



Report the downed power line to Roseau Electric Cooperative. Call 911 if there is imminent danger.

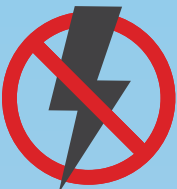
DON'TS



Never touch a downed power line – always assume the line is live and dangerous.



Don't attempt to move a downed power line – even with items that are not typically conductive.



Don't touch a structure near or connected to the downed power line. They could be energized for thousands of yards and pose serious hazards.

IF YOU SEE AN INJURY

If you see someone injured by a downed power line, call 9-1-1 for help.

- Don't try and rescue the person. The electrical current can travel through the individual to you and cause serious harm.
- The best thing to do is warn others to stay away and wait for help.



If you are in a vehicle that comes in contact with a downed power line:

- Stay in your vehicle until help arrives. Avoid touching the metal frame or any other metal in your vehicle.
- Call 9-1-1 and report the downed line.
- If you need to exit the vehicle due to fire, jump clear of the car keeping both feet together. Cross your arms over your chest and bunny hop at least 50 feet away from the vehicle. Never touch the vehicle and the ground simultaneously because this increases the risk of electrical shock.

Sounding the alarm on grid reliability

NORTH DAKOTA, MINNESOTA AT RISK OF POWER OUTAGES THIS SUMMER

America's electric grid has become increasingly unstable – and it could begin impacting Minnkota Power Cooperative's members this summer.

That's why Minnkota is joining many of our nation's grid operators and regulators in sounding the alarm on the vulnerabilities that are affecting power reliability. As the pace of change in the energy industry continues to accelerate, so does the risk of rotating power outages and other extended service interruptions. Minnkota's eastern North Dakota and northwestern Minnesota service area is no longer immune to the large-scale grid challenges that have been experienced in Texas and California in recent years.

Minnkota takes its responsibility to provide reliable, resilient and responsible electricity seriously. The cooperative has more than enough generating capacity to meet the demands of its members (like Roseau Electric Cooperative) through its coal, wind and hydro resources. But Minnkota does not operate on the grid alone. Utilities across the Upper Midwest are connected through Midcontinent Independent System Operator (MISO). Emergency events experienced in other parts of the MISO region can and do have impacts back into the Minnkota system.

One of the most significant industry issues is the retirement of base-load and dispatchable power plants – including coal, nuclear and natural gas – without adequate replacements. Wind and solar make up the majority

of the new resources being added to the grid, but they are limited by the fact that they are only able to operate intermittently – when the wind is blowing or the sun is shining. While Minnkota supports moving toward a cleaner, more sustainable energy future, it is not something that can happen with the flip of the switch. It will take decades of planning and unprecedented technology development to achieve significant carbon reduction.

MISO expresses concerns

Minnkota is not alone in coming to these conclusions. MISO issued a dire warning in April that it does not have enough reliable power plant capacity on its system to meet its projected peak demand this summer. The result is an increasing risk of power outage events.

Minnkota both buys and sells surplus power in the MISO system, which estimates a 1,230-megawatt (MW) shortfall in power plant capacity to meet its reserve margin. For context, one megawatt-hour (MWh) is enough electricity to serve more than 800 homes with an hour's worth of power.

“Due in large part to decarbonization goals set by our members and the states in our region, our resource fleet is increasingly reliant on intermittent and weather-dependent resources,” said Wayne Schug, vice president of strategy and business development at MISO. “As this trend continues in the future, MISO needs to evolve the grid, our markets, and

our operational capabilities, which is just as complex as it sounds.”

In a recent interview in the Wall Street Journal, MISO CEO John Bear added to this point by saying, “As we move forward, we need to know that when you put a solar panel or a wind turbine up, it's not the same as a thermal resource.”

MISO's peak demand for electricity typically occurs in the summer months during the hottest days of the year. The organization is conducting training and exercises to prepare for worst-case scenarios and is also implementing lessons learned and best practices. Likewise, Minnkota's energy marketing team is working to ensure it's ready to respond to volatile market and reliability conditions.

NERC issues grim report

The North American Electric Reliability Corporation (NERC) – the federal regulatory entity responsible for the reliability of the nation's electric grid – is also expressing concerns heading into the summer season. According to NERC, MISO is in the “high risk” category, and has the potential of “facing capacity shortfalls in its north and central areas during both normal and extreme conditions due to generator retirements and increased demand.”

NERC's Summer Reliability Assessment notes that reliability challenges are being compounded by evolving demands on the power grid, which has grown increasingly complex as renewable energy assets are added.

“There’s clear, objective, inclusive data indicating that the pace of our grid transformation is a bit out of sync with the underlying realities and the physics of the system,” said John Moura, NERC’s director of reliability assessment.

Along with the changing power supply mix, NERC also identified extreme weather conditions, high seasonal demand for electricity, supply chain issues and cybersecurity threats as other risks impacting reliability.

What is Minnkota doing?

While there are challenges, Minnkota supports efforts to reimagine how electricity can be produced, delivered and consumed. But the implementation of these ideas must be met with caution and common sense. After all, there is a lot on the line. A resilient and reliable electric grid that affordably keeps the lights on is the cornerstone of the American economy and our national security. Any missteps in an energy transition of this magnitude can have irreversible consequences.

So, what can be done? Minnkota is only one of thousands of utilities

across the country, but it is taking its own steps to protect itself from power reliability challenges.

- **Training and education**

Minnkota’s employees are trained to respond to emergency grid events and continuously work to shield members from the volatility of the grid and markets. The cooperative also invests significant time in helping member-consumers, lawmakers, business interests and others in the general public understand the challenges the industry faces and the complexity in providing reliable power to the region.

- **Maintaining a diverse energy mix**

Minnkota’s energy portfolio consists of a diverse mix of coal, wind and hydro resources. Working together, these facilities help ensure 24/7 reliability on the Minnkota system. Coal-based facilities remain the workhorse of the system and are routinely available to produce power during the vast majority of each year.

- **Upgrading our power delivery systems**

Minnkota is building, upgrading

and replacing the power delivery resources that connect its communities. New technologies are being added to Minnkota’s grid to provide enhanced data and communication capabilities – all in an effort to respond more quickly to issues and improve overall reliability.

- **Continuous cybersecurity evolution**

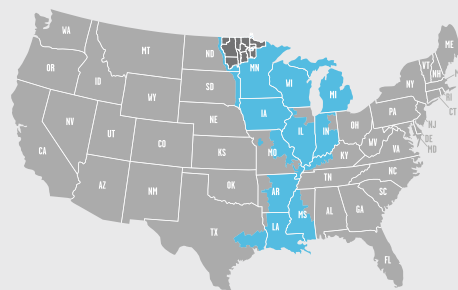
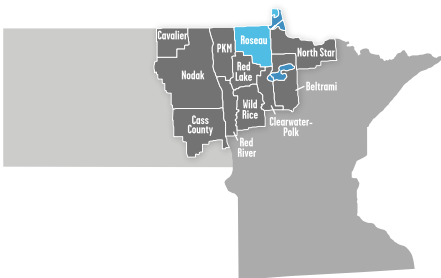
Minnkota continuously works to protect the electric grid from physical and cyber security threats. Energy experts in Minnkota’s Control Center monitor the grid 24 hours a day to ensure the safety of the cooperative’s employees, infrastructure and data.

- **Strategically utilizing demand response**

Minnkota has one of the most robust and effective demand response (also called off-peak) programs in the country. Through the program, Minnkota and its members can temporarily control electric heating, water heating and vehicle charging loads – shifting electrical demand when economical resources are not available.

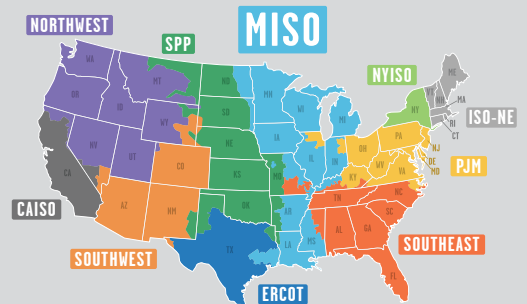
Understanding the grid

Where you fit into the Minnkota Power Cooperative system



Where Minnkota Power Cooperative fits into MISO (Midcontinent Independent System Operator)

Where MISO fits into the nation’s grids



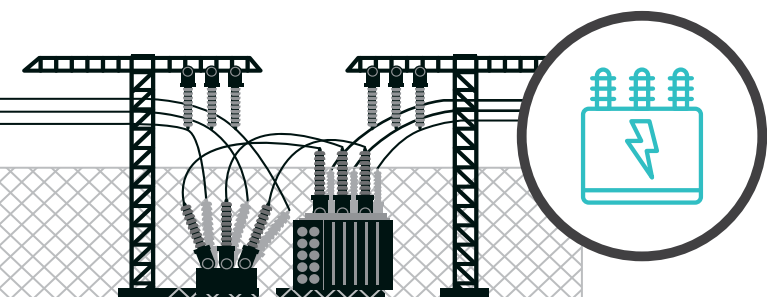
5 steps to restore power after an outage

After a major storm or natural disaster causes widespread damage, power outages may extend longer than a few hours. Our line crews work long and hard hours to restore service safely to the greatest number of consumers in the shortest amount of time. If you ever find yourself in the dark, here is what's going on:



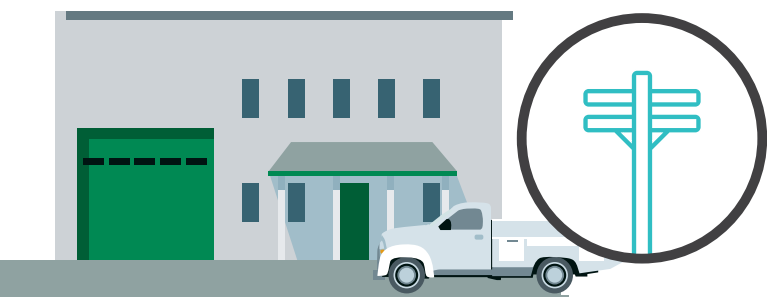
1. High-Voltage Transmission Lines

Transmission towers and lines that supply power to transmission substations – and thousands of consumers – rarely fail. But when damage occurs, these facilities must be repaired before other parts of the power supply system can operate.



2. Distribution Substations

Each substation serves hundreds or thousands of consumers. When there is a major power outage, line crews inspect substations to determine if the problems stem from the transmission lines feeding into the substation, the substation itself or issues farther down the line.



3. Main Distribution Lines

Next down the power supply chain, if no problem was found at the substation, are the distribution lines. These lines carry power to large groups of consumers in communities. If power is restored at this stage, all consumers supplied by this line should regain power.



4. Tap Lines

If local outages still occur, supply lines or tap lines are inspected. These lines deliver power to utility poles or underground transformers outside houses, businesses and schools.



5. Individual Homes and Businesses

If your home is the only one without power, the service line between a transformer and your home may need repairing. Always report an outage to help line crews isolate local issues.



Cool breeze for a warm family game night?

It's too hot, so you've gathered the family under the fan for a breezy game night. Four hours later, you've emerged the champion with a prize package of memories.

It's a powerful experience, powered by just 3 cents of ceiling fan energy.

That's the value of electricity.

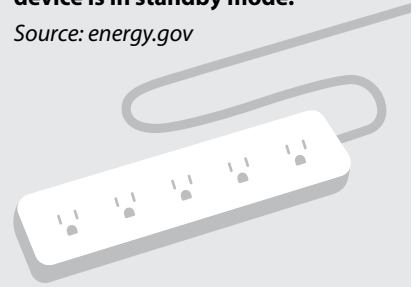


member connection

ENERGY TIP

Installing a smart power strip is a quick and easy way to start saving money while making your home more energy efficient. Smart power strips can actually cut power off to save energy since they are able to detect when a device is in standby mode.

Source: energy.gov



DATES TO REMEMBER

July 17-22
Roseau County Fair

July 21
Electric bill is due

OFFICE HOURS

Monday – Friday
8 a.m. – 4:30 p.m.
Phone 218-463-1543

AFTER HOURS/OUTAGE NUMBER

Toll-free 1-888-847-8840
(main outage call center)

CALL BEFORE YOU DIG

1-800-252-1166 or 811

PAY BY PHONE

1-877-999-3412

SMARTHUB

<https://roseauelectric.smarthub.coop/>

WEBSITE

www.roseauelectric.com

OPERATING STATISTICS

	Monthly		Year to Date	
	May 2021	May 2022	May 2021	May 2022
Members	6,553	6,645	6,553	6,645
kWh purchased	9,454,523	10,025,291	67,353,279	75,265,440
% change		6.04%		11.75%
Revenue	1,245,353	1,339,157	7,947,759	8,668,053
Cost of power	797,629	833,923	4,872,418	5,290,386
Other expenses	478,499	540,078	2,680,006	2,802,766
Operating margins	(30,775)	(34,844)	395,335	574,901
Nonoperating margins	20,021	(4,149)	80,669	178,558
Patronage dividends	-	-	179,055	-
Total margins	(10,754)	(38,993)	655,059	753,459



LIKE US ON FACEBOOK
TO STAY UP TO DATE!

@RoseauElectricCooperativeInc

Roseau County Fair

July 17 - 22

Stop by our booth starting
the evening of **July 19**

Sign up for door prizes and
receive a free gift!

For complete event details,
premium lists and schedules,
visit roseaucountyfair.com